UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,573	10/15/2003	Edward J. Seppi		7129

23639 7590 05/30/2006

BINGHAM, MCCUTCHEN LLP
THREE EMBARCADERO CENTER
18 FLOOR
SAN FRANCISCO, CA 94111-4067

EXAMINER	
YUN, JURIE	
ART UNIT	**PAPER NUMBER**
2882	

DATE MAILED: 05/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/687,573	SEPPI ET AL.	
	Examiner	Art Unit	
	Jurie Yun	2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 May 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,6-13,21-25,27-34 and 39-53* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,6-13,21-25,27-34 and 39-53* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 May 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/21/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The amendment and drawings filed 5/11/06 have been entered.

Response to Arguments

2. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 6-13, 21-25, 27-34, 39-42, and 46-53 are rejected under 35 U.S.C. 102(e) as being anticipated by Besson (USPN 6,950,493 B2).

With respect to claim 1, Besson discloses an apparatus for use in a radiation procedure, comprising: a radiation filter (Fig. 2, 150) having a first portion (152) and a second portion (154), the first and the second portions forming a layer for filtering radiation impinging thereon; wherein the first portion is made from a first X-ray filtering material, and the second portion is made from a second X-ray filtering material (column 9, lines 45-60 & column 11, lines 21-28); a structure (112) having a cavity, the radiation filter (150) in operative association with the structure (via control unit, 110); and a disk

located within the cavity, the disk having a first target material and a second target material (column 21, lines 52-57).

With respect to claim 21, Besson discloses (column 4, lines 39-64 & column 9, lines 45+) a method for generating image data, comprising: generating a first X-ray radiation using a first target material; applying a first filter factor to the first X-ray radiation to obtain a first filtered radiation; generating a first set of image data in response to the first filtered radiation; generating a second X-ray radiation using a second target material; applying a second filter factor to the second X-ray radiation to obtain a second filtered radiation; and generating a second set of image data in response to the second filtered radiation; wherein the first and the second filter factor is applied automatically using a machine (control unit, 110 controls motor, 156).

With respect to claim 39, Besson discloses an apparatus for use in a radiation procedure, comprising: a structure (Fig. 2, 150); a first radiation filter (152) secured to the structure; a second radiation filter (154) secured to the structure; a first target material and a second target material (column 21, lines 52-57); and a positioner (156) coupled to the structure (150), the positioner configured to move the structure between a first position and a second position, wherein the first radiation filter is adapted to receive a first radiation generated using the first target material when the structure is in the first position, and the second radiation filter is adapted to receive a second radiation generated using the second target material when the structure is in the second position.

With respect to claim 2, Besson discloses the first and the second target materials (Fig. 28A, 2702 & 2704) are part of a radiation source (Fig. 28B, 2802), and the apparatus further comprises the radiation source.

With respect to claim 3, Besson discloses a gantry to which the radiation source is secured (column 3, lines 53-54).

With respect to claim 6, Besson discloses the radiation source comprises an anode that includes a rare earth element, a platinum group metal, or combination thereof (column 21, lines 52-57).

With respect to claim 7, Besson discloses the radiation source comprises a voltage generator (column 13, lines 59-60).

With respect to claim 8, Besson discloses a switching element coupled to the voltage generator, the switching element configured to modulate the voltage generated by the voltage generator (column 35, lines 66+).

With respect to claim 9, Besson discloses an imager (114) for generating image data in response to radiation that has been filtered by the layer.

With respect to claims 10 and 29-33, Besson discloses the imager has a first image element for generating a first image data in response to radiation that has been filtered by the first portion of the radiation filter, and a second image element for generating a second image data in response to radiation that has been filtered by the second portion of the radiation filter (column 4, lines 39-64).

With respect to claim 11, Besson discloses a gantry, wherein the imager and the radiation filter are secured to the gantry (column 3, lines 53-54).

With respect to claim 12, Besson discloses the imager (114) is coupled to a support structure (128) for supporting an object (116) to which filtered radiation(132) is directed.

With respect to claims 13, 34, and 42, Besson discloses either or both of the first and second X-ray filtering materials are selected from the group consisting of aluminum, copper, and molybdenum (column 21, Table 1).

With respect to claims 22 and 23, Besson discloses the first filter factor is applied by placing a first filter into the X-ray radiation, and the second filter factor is applied by placing a second filter into the X-ray radiation (column 9, lines 45-60).

With respect to claim 24, Besson discloses the first filter factor has a same filtering characteristic as the second filter factor (column 9, lines 45-60).

With respect to claim 25, Besson discloses the first filter factor is different from the second filter factor (column 9, lines 45-60).

With respect to claim 27, Besson discloses the first filter factor and the second filter factor are applied by placing a first filter and a second filter, respectively, into the first and second X-ray radiation (column 9, lines 45-60).

With respect to claims 28 and 40, Besson discloses the first filter (Fig. 2, 152) and the second filter (154) are secured to a rotatable structure (filter 150 is wheel-shaped and rotates).

With respect to claim 41, Besson discloses the positioner comprises a motor (156).

With respect to claim 46, Besson discloses an electron gun (Fig. 26, 2604) for sending electrons (2606) towards the first or the second target material (2608).

With respect to claims 47-50, Besson discloses an electron deflector for changing a path of the electrons; wherein the electron deflector comprises an electromagnetic field generator; wherein the electron deflector comprises a magnetic field generator; wherein the electron deflector physically deflects the electrons (column 45, lines 55+).

With respect to claim 51, Besson discloses a gantry to which the structure is secured (column 3, lines 53-54).

With respect to claims 52 and 53, Besson discloses the structure is part of a MRI (column 60, line 6) or PET machine (column 59, lines 61-62).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claim 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Besson (USPN 6,950,493 B2) as applied to claim 1 above, and further in view of Seki et al. (USPN 3,610,984).

With respect to claims 43-45, Besson does not specifically disclose the first target material forms a ring configuration; the first target material and the second target material are positioned concentrically relative to each other; and the first target material

and the second target material are positioned relative to each other in a side-by-side configuration. Seki et al. disclose the first target material forms a ring configuration; the first target material and the second target material are positioned concentrically relative to each other (column 3, line 33); and the first target material and the second target material are positioned relative to each other in a side-by-side configuration (see Figs. 3-7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the first and second target materials of Besson to form a ring configuration, wherein the first target material and the second target material are positioned concentrically relative to each other; and the first target material and the second target material are positioned relative to each other in a side-by-side configuration, to form a more compact anode, resulting in a smaller and lighter X-ray source.

Conclusion

7. Applicant's amendment of 1/9/06 necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jurie Yun whose telephone number is 571 272-2497. The examiner can normally be reached on Monday-Friday 8:30-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on 571 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jurie Yun
Examiner
Art Unit 2882

May 17, 2006

EDWARD J. GLICK
SUPERVISORY PATENT EXAMINER

O.K. to enter
J.S.

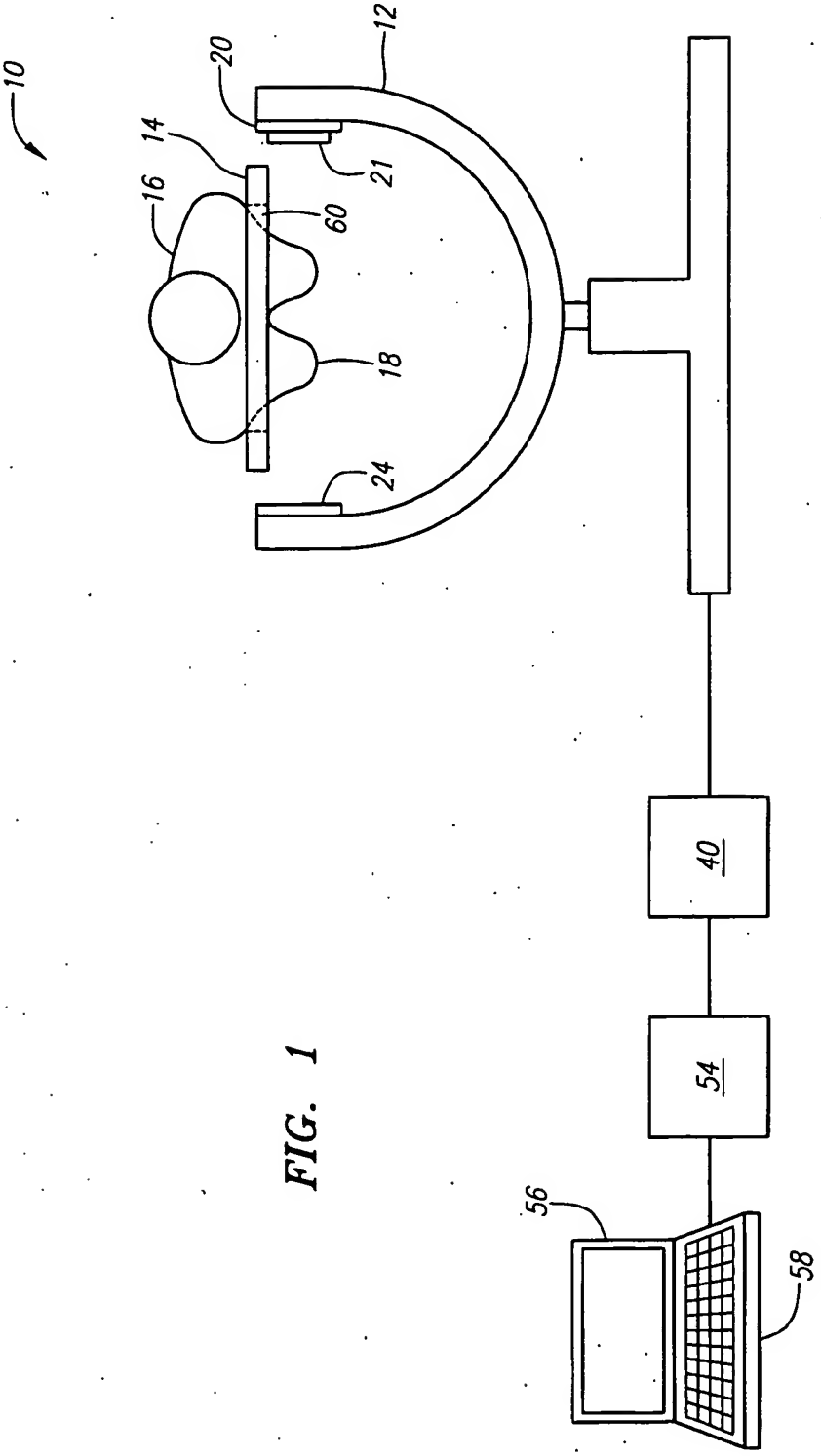

FIG. 1